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TRANSLATION (HM-730PCT-IPER)

**TREATY ON INTERNATIONAL COOPERATION IN THE  
AREA OF PATENTS**

**PCT**

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
ON PATENTABILITY**

(Chapter II of the Treaty on International Cooperation in the Area of Patents)

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| Applicant's or Agent's File Ref.<br>42 391.fl.nb   | <b>FOR FURTHER ACTION</b>   |   | See Form PCT/IPEA/416 |
| International Application No.<br>PCT/EP2005/000348   | International Filing Date ( <i>Month/Day/Year</i> )<br>January 14, 2005 | Priority Date ( <i>Month/Day/Year</i> )<br>January 23, 2004 |                       |
| International Patent Classification (IPC) or National Classification and IPC<br>B21B37/00, B21B37/16 |   |   |                       |
| Applicant<br>SMS DEMAG AKTIENGESELLSCHAFT et al.   |   |   |                       |

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| <p>1. This international preliminary examination report has been prepared by the duly commissioned International Preliminary Examining Authority according to Article 35 and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 pages, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES; these comprise</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and the International Office</i>) a total of 5 pages; these are</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> pages of the description, claims, and/or drawings which have been amended and are the basis for this report and/or pages containing rectifications that have been approved by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> pages which replace earlier pages but which, for the reasons given in field No. 1, item 4, and in the supplementary field, in the opinion of this Authority, contain a change that goes beyond the disclosed contents of the international application in the version originally submitted.</li> </ul> <p>b. <input type="checkbox"/> (<i>sent only to the International Office</i>): (please specify the type and number of the electronic data carrier(s)), which contain a sequence listing and/or accompanying tables, only in computer-readable form, as specified in the supplementary field regarding the sequence listing (see Section 802 of the Administrative Instructions)</p> <p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Field No. I Basis of the report</li> <li><input checked="" type="checkbox"/> Field No. II Priority</li> <li><input type="checkbox"/> Field No. III Nonestablishment of opinion with respect to novelty, inventive activity, and commercial viability.</li> <li><input type="checkbox"/> Field No. IV Lack of unity of the invention</li> <li><input checked="" type="checkbox"/> Field No. V Substantiated determination under Article 35(2) with respect to novelty, inventive activity, and commercial viability; documents and declarations in support of this determination</li> <li><input type="checkbox"/> Field No. VI Certain documents cited</li> <li><input type="checkbox"/> Field No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Field No. VIII Certain observations on the international application</li> </ul> |
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| Date of submission of the petition:<br>April 29, 2005  | Date of completion of this report:<br>June 20, 2005           |
| Name and mailing address of the office assigned to perform the preliminary examination:<br>European Patent Office<br>D-80298 Munich<br>Tel: +49 89 2399-0 Tx: 523656 epmu d<br>Fax: +49 89 2399-4465 | Authorized Officer:<br>Forciniti, M.<br>Tel: +49 89 2399-7903 |

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT ON  
PATENTABILITY**

International File No.: PCT/EP2005/000348

## **Field No. I Basis of the Report**

1. With respect to the **language**, the report is based on the international application in the language in which it was submitted unless otherwise indicated under this item.
  - The report is based on a translation from the original language into the following language, which is the language of the translation, which was submitted for the following purpose:
    - international search (under Rules 12.3 and 23.1 b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rule 55.2 and/or Rule 55.3)
2. With regard to the **constituent parts\*** of the international application, the report is based on (*replacement pages which were submitted to the application office in compliance with a request according to Article 14 are considered "originally filed" in the context of this report and are not attached to the report*):

### **Specification, pages:**

1-3, 6-9 as originally filed  
4-5 received on May 14, 2005 with letter dated May 13, 2005

**Claims, Nos.:**

1-4 received on May 14, 2005 with letter dated May 13, 2005

### **Drawings, Pages:**

1/1 as originally filed

a sequence listing and/or any accompanying tables – see supplementary field regarding the sequence listing.

3.  The amendments have resulted in the cancellation of:

- the description: pages
- the claims: Nos.
- the drawings: sheets/figures:
- the sequence listing (*exact details*):
- any tables accompanying the sequence listing (*exact details*):

4.  This report has been prepared as if (some of) the amendments attached to this report and listed

below had not been made, since for the reasons specified in the supplementary field they are considered by this Authority to go beyond the disclosure as originally filed (Rule 70.2 c)).

- the description: pages
- the claims: Nos.
- the drawings: sheets/figures:
- the sequence listing (*exact details*):
- any tables accompanying the sequence listing (*exact details*):

\*If Item 4 applies, some or all of these pages can be furnished with the comment "replaced".

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#### Field No. II Priority

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1.  This report was prepared without consideration of the claimed priority, since the following requested documents were not submitted by the prescribed deadline:
  - Copy of the earlier application whose priority was claimed (Rule 66.7(a)).
  - Translation of the earlier application whose priority was claimed (Rule 7(b)).
2.  This report was prepared without consideration of the claimed priority, since the priority claim proved invalid (Rule 64.1). Therefore, for the purposes of this report, the international application date cited above is regarded as the authoritative date.
3. Any additional comments:

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#### Field No. V Substantiated determination under Article 35(2) with respect to novelty, inventive activity, and commercial viability; documents and declarations in support of this determination

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##### 1. Determination

|                            |                 |
|----------------------------|-----------------|
| Novelty (N)                | Yes: Claims 1-4 |
|                            | No: Claims      |
| Inventive Activity (AI):   | Yes: Claims 1-4 |
|                            | No: Claims      |
| Commercial Viability (CV): | Yes: Claims 1-4 |
|                            | No: Claims      |

##### 2. Documents and Declarations (Rule 70.7):

See attached page.

**INTERNATIONAL PRELIMINARY  
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**Re Item V.**

1. **Claim 1** is novel in light of the prior art acknowledged on page 1 of the specification (Art. 33(2) PCT).

1.1. According to the characterizing clause of **Claim 1**, the formula for the yield point at elevated temperature is taken into account or integrated in the formula for the flow stress.

2. By taking into account or integrating the formula for the yield point at elevated temperature in the formula for the flow stress, precise flow stress values and set rolling forces can be determined even for small reductions in a way that is not obvious.

2.1. The object of **Claim 1** is thus based on inventive activity (Art. 33(3) PCT).

3. **Claims 2-4** are dependent on **Claim 1** and thus also satisfy the requirements of the PCT with respect to novelty and inventive activity.

4. The object of **Claims 1 to 4** is unquestionably commercially viable (Art. 33(4) PCT).